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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,808	08/24/2000	Roland Fischer	F-6485	9821
7590 10/07/2005			EXAMINER	
Jordan & Hamburg 122 East 42nd Street New York, NY 10168			FERGUSON, LAWRENCE D	
			ART UNIT	PAPER NUMBER
			1774	
DATE MAILED: 10/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/509,808

Applicant(s)

FISCHER ET AL.

Examiner

Lawrence D. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-46 is/are pending in the application.
- 4a) Of the above claim(s) 32-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed August 31, 2005.

Claim 24 is amended rendering Claims 24-31 are pending, with claims 32-46 withdrawn from consideration.

New Matter - 35 U.S.C. 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 24, the phrases, "wood melts including cellulose, lignin and hemicellulose" and "said increased temperature caused by short time high energy input into the wood component resulting from electromagnetic waves in the form of laser light having a duration of up to 50ms" are not supported by the specification. Applicant indicated the amendments were supported in the instant specification on page 5, line 17 to page 6, line 9 and page 6 lines 10-16; however, there was no support for these amendments in that part of the specification.

Claim Rejections – 35 USC § 103(a)

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (U.S. 5,485,685).

Hashimoto discloses a wood block, where the lignin in the wood structure is melted which firmly blocks the cellulose and hemicellulose composing the cells of the wood (column 4, lines 5-8 and lines 58-61) and the oil and fat components of wood are melted (column 6, lines 1-5). The melted lignin in the wood's cell structure ensures the coloring of the wood with a dye that can penetrate deep into the wood's interior (column 5, lines 1-7) where the melted lignin of the wood is physically altered from its original state. In instant claim 24, the phrase, "being created by exposure of at least a portion of the article of wood to an increased temperature which raises the wood comprising said at least a portion of the article of wood above a melting point thereof" introduces a process limitation to the product claim. Additionally, in instant claim 25, the phrase "cell walls melted in one or several cutting directions" also introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious

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from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims. In claim 24, the phrase, “caused by short time high energy input into the wood component resulting from electromagnetic waves in the form of laser light having a duration of up to 50ms” constitutes a ‘capable of’ limitation and that such a recitation that an element is ‘capable of’ performing a function is not a positive limitation but only requires the ability to so perform. Hashimoto is silent as to the wood melts being free from pyrolytic degradation as per instant claim 24. Since no such degradation is disclosed as being present, the limitation of claim 24 is met. Although Hashimoto does not explicitly disclose the melted areas having a higher hardness and abrasion resistance than the non-melted wood as in instant claim 27, the claimed hardness and abrasion resistance are directly related to the melted wood parts. Since Hashimoto teaches the same components as Applicant, these features would be expected, absent any evidence to the contrary.

Claim Rejections – 35 USC § 103(a)

6. Claims 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (U.S. 5,784,805).

Hashimoto discloses a wood block, where the lignin in the wood structure is melted which firmly blocks the cellulose and hemicellulose composing the cells of the

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wood (column 4, lines 5-9 and lines 59-61) and the oil and fat components of wood are melted (column 6, lines 1-5). The melted lignin in the wood's cell structure ensures the coloring of the wood with a dye that can penetrate deep into the wood's interior (column 5, lines 1-9) where the melted lignin of the wood is physically altered from its original state. In instant claim 24, the phrase, "being created by exposure of at least a portion of the article of wood to an increased temperature which raises the wood comprising said at least a portion of the article of wood above a melting point thereof" introduces a process limitation to the product claim. Additionally, in instant claim 25, the phrase, "cell walls melted in one or several cutting directions" introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims. In claim 24, the phrase, "caused by short time high energy input into the wood component resulting from electromagnetic waves in the form of laser light having a duration of up to 50ms" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform. Hashimoto is silent as to the wood melts being free from pyrolytic degradation as per instant claim 24. Since no such degradation is disclosed as being present, the limitation of claim 24 is met. Although Hashimoto does not explicitly disclose the melted areas having a higher hardness and abrasion resistance than the

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non-melted wood as in instant claim 27, the claimed hardness and abrasion resistance are directly related to the melted wood parts. Since Hashimoto teaches the same components as Applicant, these features would be expected, absent any evidence to the contrary.

Response to Arguments

7. Applicant's arguments of rejection under 35 USC 103(a) as being unpatentable over Hashimoto (U.S. 5,485,685) and Hashimoto (U.S. 5,784,805) have been considered but are unpersuasive. Applicant maintains Hashimoto does not disclose a wood component having altered properties in geometrically defined, near surface areas substantially free from pyrolytic degradation products. Examiner is not persuaded by this argument and maintains that Hashimoto discloses a wood block, where the lignin in the wood structure is melted (column 4, lines 5-8 and lines 58-61) and the oil and fat components of wood are melted (column 6, lines 1-5). Applicant further argues the melted lignin in the cell membrane of Hashimoto differs in the claimed method. Examiner maintains the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims.

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Regarding newly added limitation to claim 24, "said wood melts including cellulose, lignin and hemicellulose, the prior art of Hashimoto (U.S. 5,485,685) and Hashimoto (U.S. 5,784,805) includes such limitation because Hashimoto discloses a wood block, where the lignin in the wood structure is melted which firmly blocks the cellulose and hemicellulose composing the cells of the wood (column 4, lines 5-9 and lines 59-61) and the oil and fat components of wood are melted (column 6, lines 1-5). In claim 24, the phrase, "caused by short time high energy input into the wood component resulting from electromagnetic waves in the form of laser light having a duration of up to 50ms" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



L. Ferguson
Patent Examiner
AU 1774



RENA DYE
SUPERVISORY PATENT EXAMINER

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